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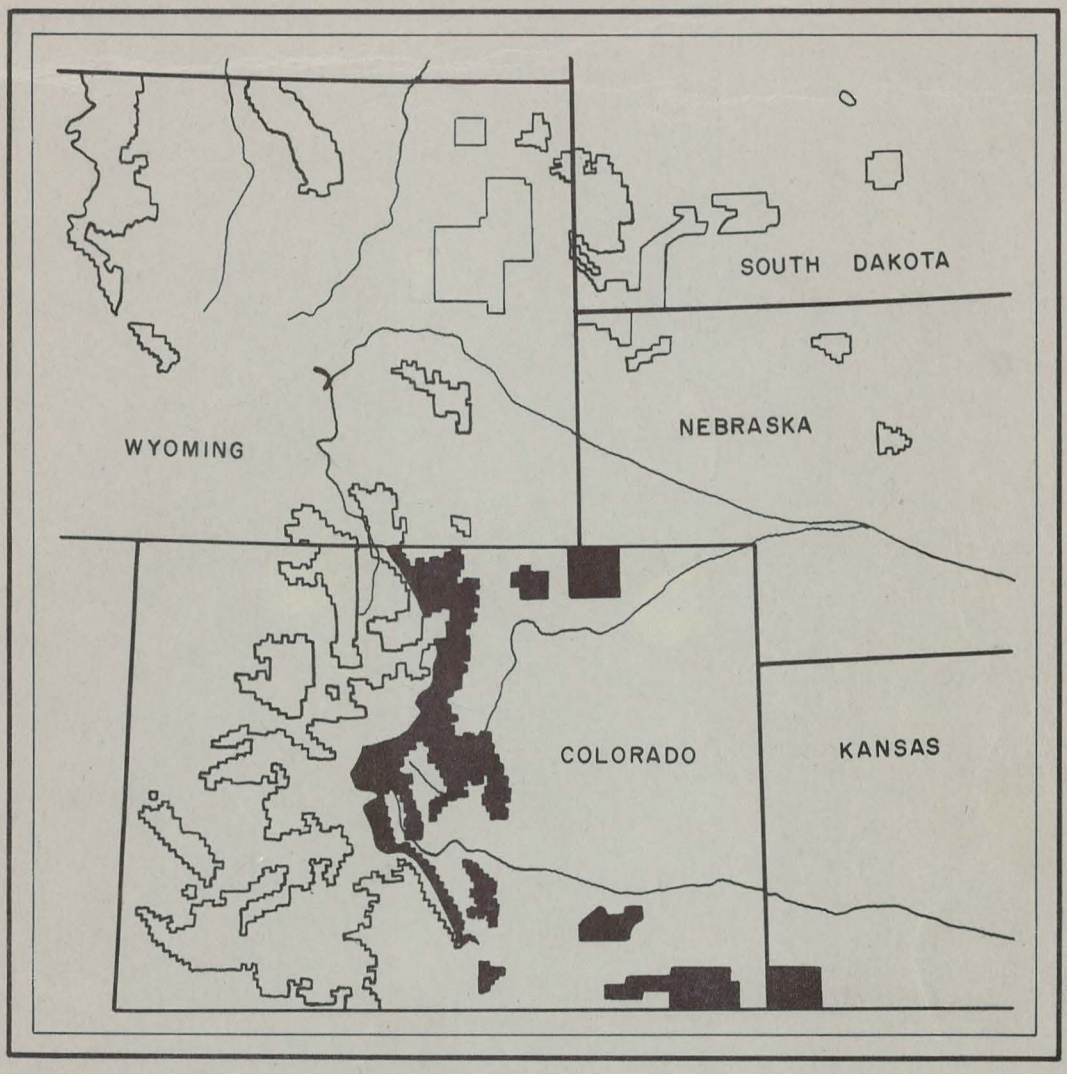
FOREST SERVICE

Region Two



National Forest & Land Utilization
Land Management Plan, 1960-1970
for

EASTERN COLORADO SUBREGION

of

Central Rocky Mtn. & Great Plains Region

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FOREWORD

The Eastern Colorado Subregion plan was developed for the purpose of attempting to meet the challenge of rapidly increasing public demands for national forest and L.U. resources and the use of forests for optimum total benefits. Although the plan deals with the management of such lands, in application it goes far beyond their boundaries. The plan represents the combined thinking of many people. It was developed by a committee consisting of forest supervisors, forest staff assistants and rangers (R/O Staffman giving direction) and reviewed by R/O Staff. It will be used by the Forests within the subregion as a guide for developing block and unit plans, which in turn will serve to give direction in all functional planning. Revision of the plan will be by a committee of forest supervisors, staff assistants and rangers. It is evidence of determination that the national forests and L.U. lands of this subregion must supply more goods and services than they now do.

The plan is not an end in itself. Many of the ideas set forth are common practice. Some are new and, as more land management knowledge is gained, additional ideas will find a place in the plan.

Probably the most apparent values of the plan will be to:

1. Direct administration so as to obtain harmony in multiple resources management on a particular area of land.

2. Provide a long range guide for making the highest use of land for the greatest total public good.

3. Provide integration and implementation in managing the various resources and uses--recognizing their value (rank) in the total planning picture.

4. Provide for continuity in management direction.

5. Serve as a vehicle for orientation of new administrators.

6. Assure a better average of sound decisions by both old and new administrators.

7. Provide a base for conducting G.I.I.'s.

8. Provide a frame-work within which all national-forest functional planning will be meshed.

9. Provide a basis for consulting with and informing people in F.S. management policies.

Approved: 3/26/58 (Date) Arnold W. Pierson (Regional Forester)

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I. PLANNING PERIOD

The planning period is about 10 years or to 1970, the estimated useful life of the plan. Review for minor revisions should be made at the end of 5 years, or about 1965. A major reanalysis should be made in 1970.

II. MANAGEMENT SITUATION

The area to which this Subregional Plan is directed includes Eastern Slope National Forest lands in Colorado and the Land Utilization Projects in Colorado and Morton County, Kansas. This Subregion area is a part of the Forest Service Region Two, which comprises national forest and Land Utilization lands in Colorado, Eastern Wyoming, So. Dakota, Nebraska, and Kansas. (See map in Appendix, page 1).

Specifically, all of the Pike, Roosevelt, and San Isabel Forests and the Clear Creek Ranger District of the Arapaho, and the Land Utilization Projects in Colorado and Southwest Kansas (near Colorado line) are involved. The gross planning area contains the interspersed lands in other ownerships from the crest of the Front Range in Colorado to the Eastern Colorado line and Morton County, Kansas.

There are 3,132,589 acres of public land in National Forests and 742,746 acres in L.U. Projects, totaling 3,875,335 acres, in the Subregion. Elevations range from 14,431 feet to 3400 feet at the eastern edge of the subregion. Yearly precipitation varies from as much as 50 inches in the mountains and 13 to 18 inches on the Central Great Plains generally. The transition from mountain to plains is abrupt both as to elevation and rainfall. The mountain slopes generally are steep. Mountain soils largely are granitic and unstable. Plains soils are light and highly subject to wind erosion.

Two major rivers, the Arkansas and South Platte originate on the National Forests. The valleys of these rivers are among the richest irrigated-agricultural developments in the U.S. The national-forest lands produce approximately 2 million acre feet of water annually. This represents about 85% of the water consumed in Eastern Colorado. Imports of water from west slope are large. (See page 4 in Appendix).

The heaviest population in Region 2 is in this area, just east of the national forests. In 1950 the population census was slightly over one million for the Denver area alone. The estimated population is now 840,000 and is growing at the rate of 3000 per month. Stimulating growth in this area since 1950 has been the establishment of the Air Force Academy, Bureau of Standards, Glenn Martin Air Craft Corporation, Ramowoolridge Corporation and others. Indications are that agriculture in this area will become of less economic importance (area-wise) as time goes on. Manufacturing is increasing more rapidly here than it is nationally. Well founded projections indicate that between now and 1975 population will increase 40% and water requirements will double. Migration of people to this subregion is predominantly from the Midwest and nearby States to the South. To a large extent these people are unfamiliar with the resources and land management problems of this area. This indicates direction for information and education effort which must be taken

into account in planning at all levels. (See graph on population trend, page 2 of Appendix).

National forests in the subregion furnish 65,000 cow months and 61,000 sheep months of grazing. The grazing use only 6½% and 3% respectively of the use permitted in Region 2 forests. It is about one-half of one percent of the total feed requirements of beef cattle and sheep owned in Colorado. The L.U. projects furnish 147,000 cow months grazing.

About 1½ million acres of the national forest land are timber producing land. Present timber production is considerably below potential because of the effects of uncontrolled cutting and wildfires during the early settlement period. The present allowable annual cut is 36 million board feet. This can be increased by intensive management. Two-thirds of the Region's planting needs are in this area. One-third of the commercial timber land is badly in need of stand improvement.

Recreation on national forests in the area totaled more than 5½ million man-days in 1956. This is 47% of the total recreation use in Region 2 and 8% of the total national forest recreation use in the United States. Recreation pressure in the subregion is great because of the large adjacent population; also it is the first major mountainous area west of the Central Plains and Prairie States. Recreation pressure will continue to pyramid as the population here and in the nation increases.

Wildlife in the area attracts nearly one fourth of the big game hunting and fishing and one-half of the small game hunting of Region 2. Estimates of big game animals in 1956 are 53,000 mule deer, 3,100 elk, 1,800 antelope, 950 bear and 800 Bighorn sheep. There are 1,700 miles of fishing streams and 4,200 surface acres of fishing lakes. Hunting and fishing demand is ample to control and harvest numbers of big game and fish by manipulating length, time and type of season. Effective good working relations with the State Fish & Game Department, Fish & Wildlife Service and sportsman organizations are essential.

Located within the forest boundaries of this area and intermingled with the forest land are 797,000 acres of State and private land. They represent 21% of the national forests gross area. There are tracts of private land that are or can serve to complement good over-all area land management. These tracts should remain in private ownership. However, there is private land which due to its location and use that should be under National Forest administration. Likewise, there are parcels of Forest Service land that more properly should be in private ownership. Through acquisition and exchange progress has been made toward improving the land ownership pattern. There is, however, an urgent need for more progress in blocking out ownerships of both Government and private land if a good job of total land planning and management is to be done. In some cases opportunities will need to be made through information and education efforts with individuals and the public.

Several major east-west highways cross the subregion starting in the foothills leaving the area as they cross the Continental Divide. There are a few important north-south highways in the area (1) the Peak-to-Peak highway particularly as planned for future development (2) the Morrison-South Park- San Luis Valley highway (3) the South Park-Colorado Springs highway. A network of minor roads radiate through much of this area making it partially accessible. The development of a transportation system as regards forest highways, forest development roads, and trails is not keeping pace with the fast increasing recreation use. Primary needs to correct this situation are planning and funds.

At present actual production of valuable minerals is confined to a few large operations such as Climax Molybdenum Co. During the early days there were wide spread mining operations throughout this area (many of them were colorful and dramatic). While many land scars and problems from land and timber abuse were left behind, this era played an important part in opening the way toward the start of development of this subregion. Later prospecting such as for uranium has duplicated this early activity since valuable ores have not been found in commercial quantities to any extent. However, administration today is still materially affected and this problem will continue.

It is evident that the intense and growing pressures from public use have a profound effect on national forest resources. It is equally apparent that the growing demand for products and services from these lands will require closely correlated functional planning. To achieve these objectives, management direction must be established to harmonize competing demands in multiple use of the land and point the way to increased total production..

The plan sets up basic management decisions for the primary resources of Soil and Water and for the principal and competing uses of national forests and L.U. land: water production, recreation, timber production, forage production, wildlife and mining. Following these basic decisions management directions are set forth for each of the resources and uses represented in management zones. (See chart on Management Situation, page 3 of Appendix).

III. MANAGEMENT DECISIONS

SOIL

Generally the soil in this area has relatively low stability, productivity and fertility.

DECISION: MANAGEMENT WILL BE GEARED TO KEEPING SOIL IN PLACE AND IMPROVE ITS GENERAL PRODUCTIVE QUALITIES FOR WATER AND VEGETATION.

WATER

Eastern Colorado consumes 2 1/3 million acre feet of water annually. 82% of this amount is produced on N.F. of the Subregion. The 1950 population was 1,066,000. Its estimated increase will be 40% by 1975 and the water requirements doubled by that time. (See table on water yield on page 4 of Appendix).

DECISION: MANAGEMENT WILL PROVIDE FOR THE PRODUCTION AND DELIVERIES OF THE OPTIMUM AMOUNT OF USEABLE WATER IN STABLE STREAM FLOW OR SUBSURFACE SUPPLY COMPATIBLE WITH PROTECTION OF SOIL AND OTHER RESOURCES AND USES.

RECREATION

Recreation use in the area is a dominant value. The upward trend of recreation use is expected to continue and accelerate. The recreation areas are only partially developed or accessible. (See chart on Recreation use trend on page 6 of the Appendix).

DECISION: RECOGNITION WILL BE GIVEN TO THE RELATIVE IMPORTANCE OF RECREATION IN OVER-ALL MANAGEMENT PICTURE, AND MANAGEMENT WILL BE GEARED TO DEVELOP THE POTENTIAL RECREATION VALUES.

TIMBER

The Subregion can grow three times as much timber as it is now growing. With reforestation plus stand improvement, it will take twenty years to bring the area into full wood production.

DECISION: LANDS SUITED FOR GROWING TIMBER WILL BE MANAGED AND DEVELOPED TO ATTAIN FULL PRODUCTION CONSISTENT WITH OTHER VALUES. PROPER STOCKING OF YOUNG GROWTH SHOULD BE ACCOMPLISHED OVER THE NEXT TWENTY YEARS.

RANGE

Forage available to domestic livestock and big game in old burned areas has been greatly reduced by coniferous reproduction. Overstocking with domestic livestock has resulted in grazing some

land not suited to this use and damage to range and other forest values. Grazing values are relatively low on the national forests land in the subregion. (See chart on trend of grazing use on page 9 of Appendix).

DECISION: LAND SUITED TO GRAZING WILL BE INTENSIVELY MANAGED FOR THAT PURPOSE, CONSISTENT WITH OTHER VALUES.

WILDLIFE

Management of big game populations is simplified by heavy nearby hunter population. Numerous water diversions and impoundments impose special problems in maintaining suitable fish habitat.

DECISION: WILDLIFE HABITAT WILL BE DEVELOPED AND MANAGED IN COOPERATION WITH STATE AND FEDERAL WILDLIFE AGENCIES TO PROVIDE FOR MAXIMUM PRODUCTION OF GAME AND FISH SPECIES COMPATIBLE WITH OTHER VALUES. ADVERSE EFFECTS OF WATER IMPOUNDMENTS AND DIVERSIONS ON FISH AND GAME WILL BE MINIMIZED BY FULLY EXERCISING THE PROVISIONS OF THE COORDINATION ACT.

MINERALS

Mining and prospecting have been active in this area since 1860. The land status pattern resulting from mining claims has created and will continue to create administrative problems.

DECISION: WILL ASSIST AND COOPERATE WITH LEGITIMATE MINERAL ACTIVITY AND ACTIVELY PROTEST ABUSES OF THE MINING LAWS.

TRANSPORTATION

To realize proper values on all forest resources, especially recreation, a greatly increased construction program of highways, roads, and trails is essential to orderly development of the area.

DECISION: GIVE HIGH PRIORITY TO USE OF ALL PURPOSE ROAD AND TRAIL FUNDS IN THIS AREA - CONSIDERING THE RELATIVE NUMBER OF FOREST VISITORS, KEEP RECREATION DEVELOPMENTS AND TRANSPORTATION SYSTEM IN BALANCE.

IV. MANAGEMENT DIRECTION

This section outlines the direction which management will take for certain resources and uses that are common to all the areas. They are set forth here to avoid repetition when considering management direction by Zones. (Zones as listed on page 9).

Transportation

1. Location of highways, roads and Jeep ways will be made with a view of giving maximum preservation to natural conditions and capitalizing on potential as well as existing forest values.

2. Construction projects will provide for soil stabilization through revegetation and other means as promptly as practicable.

3. Maintenance of transportation routes will be conducted in a manner conducive to soil stabilization.

4. Take advantage of all opportunities to obtain permanent rights-of-way in negotiating timber sales.

5. Locate roads and highways to avoid stream channel disturbance. If not possible, fish habitat will be developed in relocated stream channels.

Fire Control

1. As a guide to fire control planning and practices, recognize that increasing hazard and risk seriously threaten all resource values.

2. Emphasize analysis of the fire problem with particular attention to: prevention, fuel treatment, State and private land problems, cooperative relationships with other land management agencies and military installations.

3. Hold fire losses within tolerable limits as determined by zone needs.

4. Through good resource management, reduce the opportunities for wild fires to start; improve the opportunities to facilitate their control.

Lands

1. Boundary and land exchange will be used to consolidate ownership, with emphasis in acquiring lands with high multiple-use value and disposing of lands better suited to private ownership.

2. Acquire key areas for administrative use, rights-of-way and other uses that will promote multiple-use management.

3. National forest lands bordering streams, and lakes or which provide valuable public access will not as a rule, be exchanged.

4. Lands with high recreation value or lands that provide public access to N.F. land are first priority for acquisition by land exchange.

5. Lands with extraordinary public resource or administrative value will be given protection through the use of appropriate laws and regulations.

6. Encourage occupancy type of recreation on private land when available.

7. In connection with planned Federal reservoir projects (inside the forests) make concerted effort to have private land needed for public use, health and property protection acquired and placed under National Forest administration.

Minerals

1. Recognize legitimate mineral activity as a form of resource use. Such activity may be reconciled to the usual objectives of administration through cooperation with the miner.

2. Illegal occupancy or use under the guise of a mining location will be discouraged and, if necessary, the claim will be protested. Such activity will not be legalized by the issuance of a Special Use Permit (1) until the validity of the claim has been determined and (2) if recognition of the use will not be prejudicial to N.F. interests.

3. Mining activity which exceeds normal operations and results in damage to N.F. land will be subject to injunction until the validity of the claim is determined.

4. A determination of surface rights will be made on all areas where locations may now or in the future interfere with N.F. administration.

5. Stipulations in gas and oil leases will be fully observed to protect N.F. and L.U. interests.

MANAGEMENT ZONES

In this area eight management zones are considered. They are named and classified as follows:

Crest Intermediate Foothills	(considered as vegetative (or physiographic zones.
Roadside Waterfront Streamside	(considered as occupancy (zones.
Special	(Included here are special (areas such as wilderness, (natural, buffer zones ((around parks).
L.U. Projects	(The L.U. projects are (dealt with separately.

Each of the zones are described and management direction indicated for the major resources represented in each zone.

Representative Illustrations

of

Crest Zone

GPO 852817

CREST ZONE

The Crest Zone is the highest zone in this area. The altitudinal range varies from about 10,500 to over 14,000 feet and extends from the south end to the north end of the area. It includes the alpine and subalpine types down to the upper limits of the Intermediate Zone.

Water yield per acre is greatest in this zone. Fully half of the annual precipitation of approximately 35 inches leaves the area in the form of stream flow (snow melt). This results in the production of at least 1½ acre feet of water per acre annually.

It is important summer range for big game animals and furnishes some range for domestic animals. Shallow soils and short growing seasons limit the period of use, and dictate a policy of caution in the management of this zone.

It has a cool climate and contains much spectacular scenery. Mountain climbing, pack trips, photography and fishing in high altitude lakes provide the chief forms of recreation in this zone. The major recreation use and developments are concentrated within the Occupancy Zones.

MANAGEMENT PRIORITY

Water---primary
Recreation---secondary

MANAGEMENT OBJECTIVES

To provide for production and delivery of the maximum amount of usable water in a regulated flow. To establish and use sound grazing capacities and management for wildlife and domestic stock.

MANAGEMENT DIRECTION

Soil

1. Management practices that will improve soil conditions will be given preference.

2. Uses that accelerate erosion will be avoided, except where adequate preventive or corrective measures can be specified and will be applied.

3. Accelerated erosion will be controlled where unacceptable damage is occurring.

4. Close working relationships will be maintained with agencies, organizations, and individuals concerned with the classification, mapping, management and protection of soil, both inside and outside the national forests.

5. Soil investigations will be obtained when possible in advance of resource project planning where there is uncertainty as to suitability or capability.

Water

1. Management practices that will increase yield of usable water will be given preference to the extent compatible with other uses. (Recognizing priority rank).

2. Any agreements negotiated or permits issued for development, diversion or storage of water on national forest land will provide for protection of other uses of land or water in accordance with a full evaluation.

3. Initiate water projects or assist in their development by others for on-site use when consistent with State law and when the public will benefit through increased use of national forest resources.

4. Cooperate with other agencies in the development of water and in the control of water contamination and pollution.

5. As research information becomes available adjust and develop resource management to make use of findings.

Recreation and Occupancy

1. Public recreation developments will meet simple mountain type standards guided by public safety and comfort.

2. Occupancy, when permitted will be in connection with other authorized use of resources.

3. Occupancy and use will be carefully regulated so as to protect and maintain soil and water values in this critical zone.

4. Recreation occupancy uses will be limited to the roadside zone.

5. Uses not compatible with management priorities and objectives will be placed on suitable tenure and eventually eliminated.

Timber

1. No commercial cutting will be done.

2. Will be given protection.

3. Slash resulting from insect and disease control will be lopped and scattered.

Grazing

1. Shallow soils, a short growing season and rigorous climate, combine to make range recovery slow, and artificial revegetation extremely difficult. Forage production is low. Usable range, as determined by the range analysis, should be used conservatively. Discontinue grazing on range classed as unusable.

2. The need for forage for horses used by recreationists will be given high priority when permitting grazing in this zone.

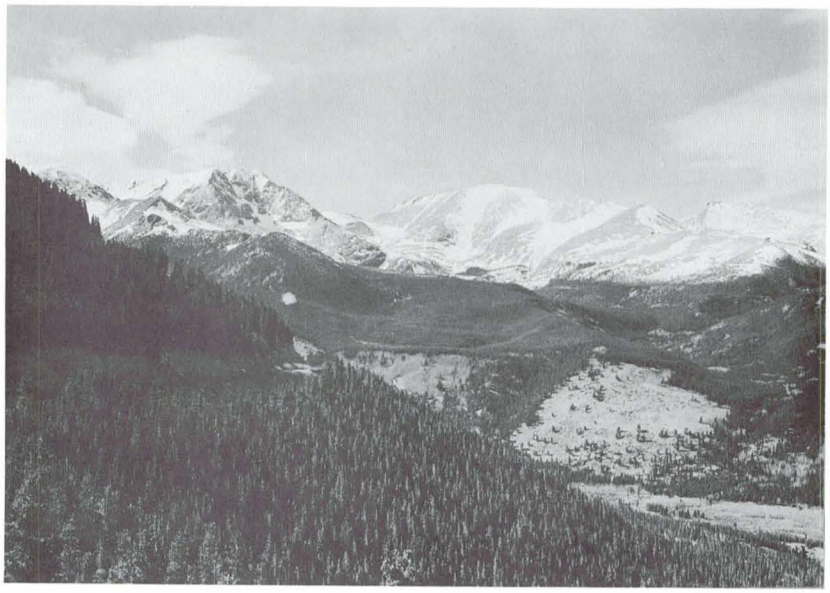
Wildlife

1. Consider the habitat needs of desirable wildlife populations when planning, developing or permitting uses and activities in this zone. Some examples are: forage for Bighorn sheep, summer range for elk, stable water levels in high altitude lakes and willow fields for ptarmigan.

2. Maintain close working relationship with all wildlife management agencies.

3. Take intiative in planning and execution of habitat improvement programs.

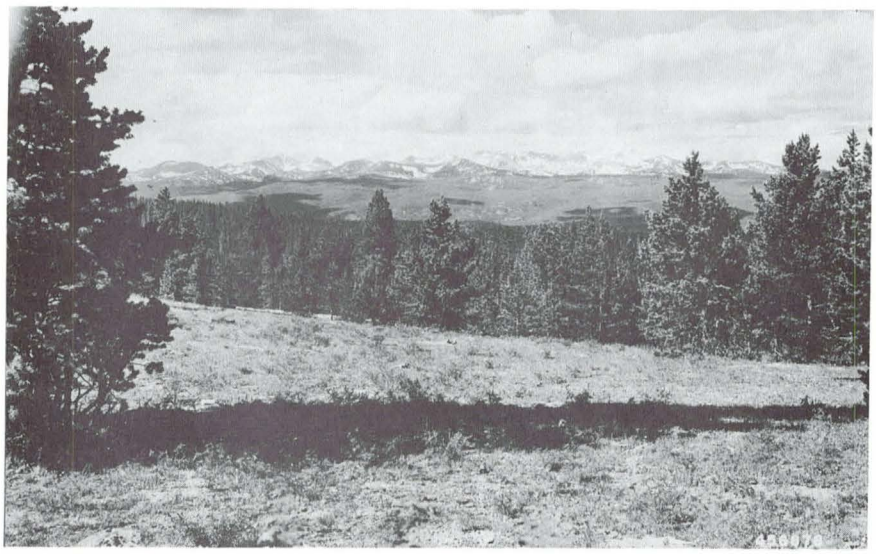
Notes On Revisions and Corrections



Representative Illustrations

of

Intermediate Zone



INTERMEDIATE ZONE

The Intermediate Zone extends from the lower limits of the ponderosa pine type, through the lodgepole pine, and to the upper limits of the spruce-fir commercial timber type.

Annual precipitation varies from about 15 inches to 35 inches. Although the Crest Zone yields more water per acre, the Intermediate Zone because of its size, produces the highest total yield.

This zone contains all of the commercial timber lands of the subregion.

Practically all of the National Forest cattle range in the subregion is in this zone. Forage is found on grassy flats and gentle slopes, in open timber stands, and in scattered parks and stringer bottoms.

The medium and upper elevations provide much of the summer range for big game animals. The lower elevations provide both summer and winter game range. Most of the fishing waters are in this zone.

Hunting, fishing, hiking, and riding are popular forms of recreation in this zone. However, concentrated recreation use and facilities (including summer homes) are mainly within the Occupancy Zones.

MANAGEMENT PRIORITY

Water and Timber, primary
Wildlife and Grazing, secondary

MANAGEMENT OBJECTIVES

1. To grow and harvest a maximum quantity and quality of timber on a sustained basis, consistent with satisfactory water production.

2. To establish and use sound grazing capacities and management for wildlife and domestic stock.

MANAGEMENT DIRECTION

Soil

1. Management practices least damaging to soil will be given preference.

2. Uses that accelerate erosion will be avoided, except where adequate preventive or corrective measures can be specified and will be applied.

3. Accelerated erosion will be controlled where unacceptable damage is occurring.

4. Close working relationships will be maintained with agencies, organizations, and individuals concerned with the classification, mapping, management and protection of soil.

5. Soil investigations will be obtained in advance of project planning where there is uncertainty as to suitability.

Water

1. Management practices that increase and protect usable water will be given preference to the extent compatible with other uses (recognizing priority rank).

2. Any agreements negotiated or permits issued for development, diversion or storage of water on national forest land will provide for protection of other uses of land or water in accordance with a full evaluation.

3. Initiate water developments or assist in their development by others for on-site use when consistent with State law and when the public will benefit particularly through increased recreation use of national forest.

4. Cooperate with other agencies in the development of water and in the control of water contamination and pollution.

Timber

1. Revise functional plans on the basis of forest survey data.

2. Convert "wild" stands to managed forests with special attention to:

    a. Use of commercial timber sale opportunities.

b. Maximum use of Sale Area Betterment funds.
c. Working toward the development of markets for small diameter forest products.
d. Unless suitable controls are available and can be applied avoid reforestation in big game concentrations.
e. Consider wildlife habitat and recreation needs in timber management programs.

3. Regenerate understocked timber sites of high quality, guided by soil suitability and capability determinations.

4. Use research findings to modify timber management practices to insure fullest production of timber with due consideration for other resources, especially water.

5. No commercial timber cutting will be done on unstable soil, unless adequate measures are taken to reduce soil movement to an acceptable minimum.

6. Give special attention to protection from fire, insects, and disease.

Grazing

1. Bring all usable range, as determined by the range analysis, to maximum production through sound range management practices and physical improvements. Concentrate effort and use on the better sites. Give low priority to marginal areas. Limit range revegetation to the best sites.

Wildlife

1. Generally, reserve sufficient forage to meet wildlife needs on all lands with particular emphasis on big game winter range.

2. To the extent possible, regulate and coordinate other activities and uses so that streams retain their highest potential for fish habitat.

3. Wherever practicable provide for public fishing in all water impoundments.

4. Give access to public lands high priority in all land exchanges, exchange of use agreements and road and trail programs.

5. Exercise initiative in planning and execution of habitat improvement programs.

Recreation and Occupancy

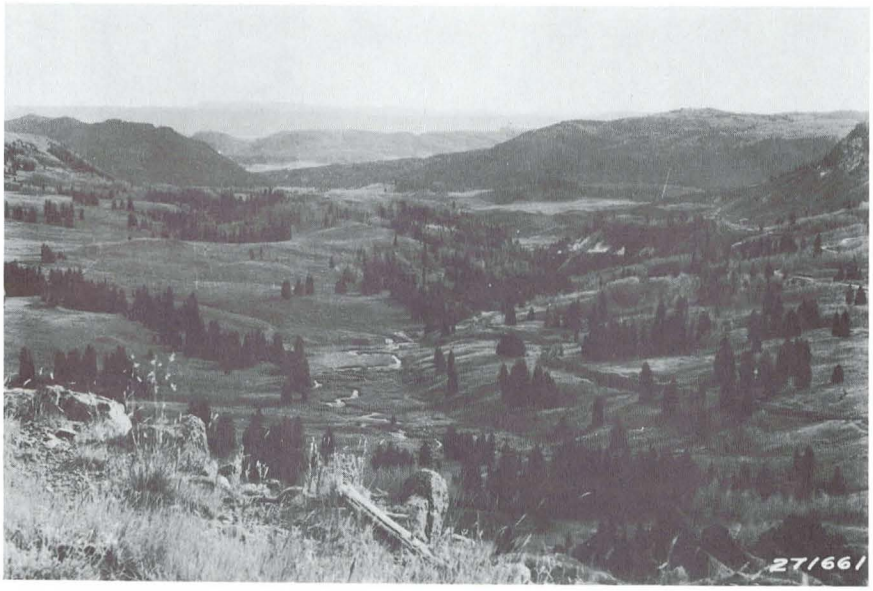
1. Aesthetic recreation values will be given consideration in the management of all resources, occupancy, and use.

2. Proposed development and use will be in accordance with prepared plans, and limited to the Roadside Zone.

3. Planned reservoir development will insure adequate provision for the needed recreation facilities. Full development of recreation potential will be planned as needed on all reservoirs irrespective of the constructing agency.

4. Encourage commercial and single purpose type recreation on private lands where available.

Notes On Revisions and Corrections



Representative illustrations

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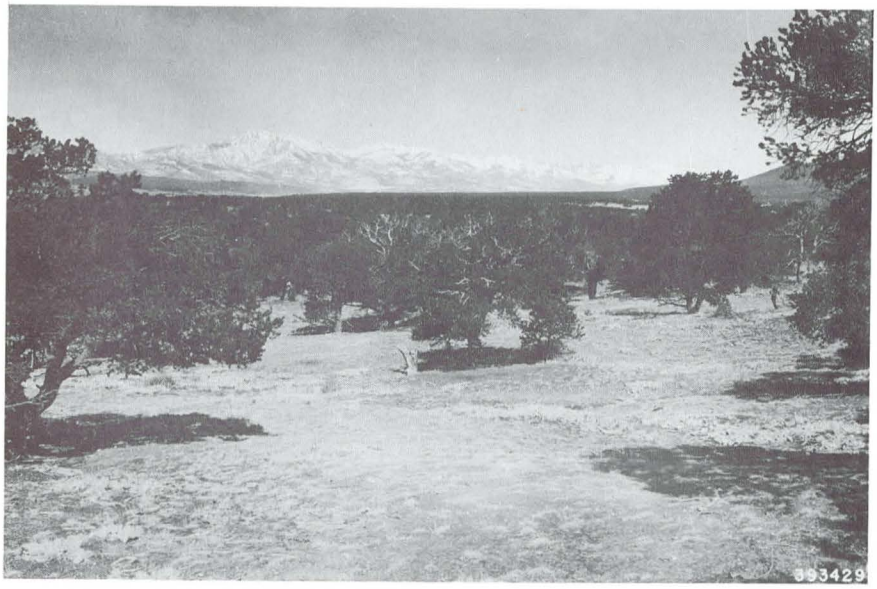
Foothills Zone



FOOTHILLS ZONE

The Foothills Zone is the area along the base of the mountains. Vegetation is the woodland brush type which, is composed, for the most part, of such species as pinon pine, juniper, scrub oak, etc.

Annual precipitation is generally below 15 inches. Summer cloudbursts of high intensity and short duration are common. Water production is very low, but it is this zone which contributes much silt to the streams which pass through it.

Soils in this zone vary throughout the subregion but, in general, they are highly erosive. Topography ranges from gently rolling to precipitous and steep; vertical-walled gullies are common where land abuse has occurred.

The zone furnishes important winter deer range over most of the subregion. Livestock grazing and recreation, other than hunting, are minor.

MANAGEMENT PRIORITY

Soil - primary
Wildlife - secondary

MANAGEMENT OBJECTIVES

To establish and use sound grazing capacities and management for wildlife and domestic stock to maintain forage supply and soil stability.

MANAGEMENT DIRECTION

Soil

1. Management practices that will improve soil conditions will be given preference.

2. Uses that accelerate erosion will be avoided, except where adequate preventive or corrective measures can be specified and applied.

Recreation and Occupancy

1. Aesthetic values will be given consideration in the management of all resources, occupancy, and use.

2. Occupancy will ordinarily be permitted in connection with other authorized uses of the resources.

3. Occupancy and use will be carefully regulated so as to protect and maintain soil values in this critical zone.

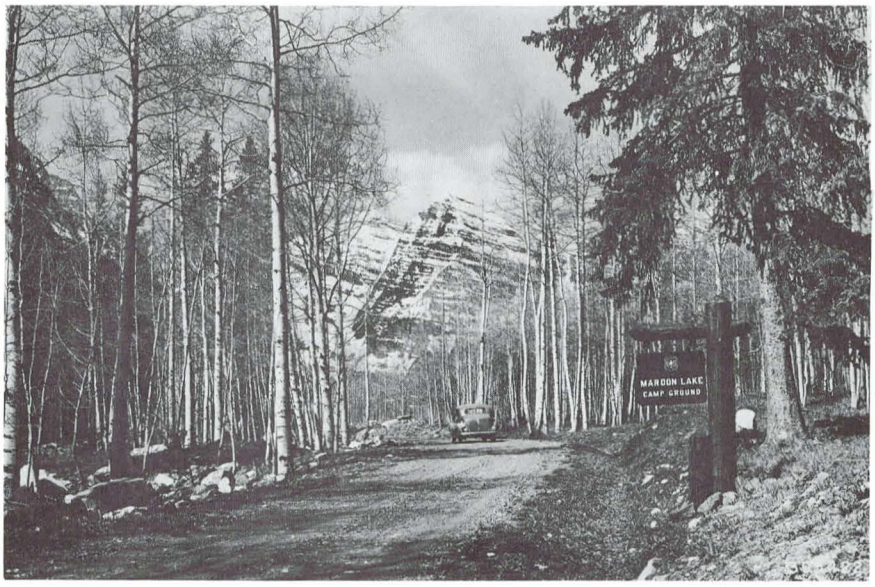
4. Recreation occupancy use will be limited to roadside zone.

Notes On Revisions and Corrections

Representative Illustrations

of

Roadside zone



ROADSIDE ZONE

This is an Occupancy Zone established to define an area of national forest land on which the present or future highest use is primarily related to the effects of accessibility resulting from travel on highways and roads. It starts at the edge of the road right-of-way and includes the roadside scenic strip. The width of the zone is very flexible and may extend beyond the scenic strip a few hundred feet to a mile or more. It includes areas of existing or potential occupancy and use such as recreation areas, resorts, or residence groups.

The key characteristic of the zone is the volume and diversity of present and potential recreation value and services. It involves unusual problems and unusual opportunities in management. This Zone transects all vegetation Zones.

Roadside zoning of Interstate, State, and Forest Highways is required and may be extended to all or to selected parts of county or forest roads.

MANAGEMENT PRIORITY

Recreation - Primary

MANAGEMENT OBJECTIVES

1. To insure that the zone resources are fully considered, protected and intensively developed on the basis of highest relative value to meet the demands resulting from accessibility.

2. To provide management direction for existing or potential multi-purpose use.

MANAGEMENT DIRECTION

Soil

1. Management practices least damaging to soil will be given preference.

2. Uses that accelerate erosion will be avoided, except where adequate preventive or corrective measures can be specified and applied.

3. Accelerated erosion will be controlled where unacceptable damage is occurring.

4. Close working relationships will be maintained with agencies, organizations, and individuals concerned with the classification, mapping, management and protection of soil.

5. Soil investigations will be obtained in advance of project planning where there is uncertainty as to suitability.

Water

1. Management practices that will increase and protect usable water will be given preference to the extent compatible with other uses. (Recognizing priority rank).

2. Any agreements negotiated or permits issued for development, diversion or storage of water on national forest land will provide for protection of other uses of land or water in accordance with a full evaluation.

3. Initiate water developments or assist in their development by others for on-site use when consistent with State law and when the public will benefit particularly through increased recreation use of national forests.

4. Cooperate with other agencies in the development of water and in the control of water contamination and pollution.

Recreation and Occupancy

1. Summer homes will be permitted only on sites not needed for a higher use.

2. Summer home type trailer campsites will be given low priority consideration -- shift this use to private lands to extent possible.

3. Encourage commercial type recreation on private lands where they are available.

4. Protect these areas through use of appropriate laws, regulations and executive order.

5. Work with road building agencies to provide roadside rest areas for the traveling public.

6. Occupancy other than recreation may be permitted when necessary to provide a public service and when required temporarily for utilization of resources.

Timber

1. Timber will be harvested in such a manner and to a degree that will be compatible with, and enhance, recreation values.

Grazing

1. Grazing will be managed or adjusted as necessary to provide for recreation uses.

Lands

1. Priority will be given to survey and posting of interior and exterior national forest boundaries within this zone.

2. An inventory of rights-of-way will be made and an aggressive action program set up to obtain those needed.

3. Acquire tracts of private land, which under national forest administration can make a greater contribution to the total public good.

Notes On Revisions and Corrections

Representative illustrations

of

Waterfront Zone

WATERFRONT ZONE

The Waterfront Zone constitutes an area of variable width on all sides of principal streams and rivers or around lakes and reservoirs. The width is variable in order that it may include the needs that arise in the following areas of consideration:

(a) the stream channels and lake shores
(b) riparian vegetation
(c) adjoining slopes now occupied or susceptible to occupancy and use
(d) adjacent areas which can be used to draw certain types of occupancy such as campgrounds, away from proximity to the water's edge, and
(e) buffer strips of trees and other vegetation that furnish background or important scenic values.

Because the Eastern Colorado subregion is closest to the largest population centers of the Rocky Mountain Region, the impact and conflicts on these lands are great. Occupancy and use in this zone is generally one of the heaviest in the subregion. The major direction of use is towards recreation, both existing and potential, due to the attractiveness and demand of the areas for fishing, boating, camping, and picnicking. Access roads are usually only fair, and are in need of improvement and expansion. Management in many areas is often complicated by the existence of interspersed privately owned lands.

The Waterfront Zone will take precedence over the Roadside Zone, i.e., where a road (w/roadside zone) crosses a Waterfront Zone management direction will be that prescribed for Waterfront Zone.

MANAGEMENT PRIORITY

Recreation - primary
Water - secondary
(There will some exceptions - where water is of primary priority for example, for domestic water supply).

MANAGEMENT OBJECTIVES

To properly plan and provide for optimum use of existing and potential areas for recreation and occupancy. Other resource use will be subordinate to and harmonized with recreation.

To maintain, restore or improve appearance of stream channels, and shorelines.

MANAGEMENT DIRECTION

Soil

1. Management practices least damaging to soil will be given preference.

2. Uses that accelerate erosion will be avoided, except where adequate preventive or corrective measures can be specified and will be applied.

3. Accelerated erosion will be controlled where unacceptable damage is occurring.

4. Close working relationships will be maintained with agencies, organizations, and individuals concerned with soil classification.

5. Soil investigations will be obtained in advance of project planning where there is uncertainty as to suitability.

Water

1. Management practices that will increase and protect usable water will be given preference to the extent compatible with other uses (recognizing priority rank).

2. Any agreements negotiated or permits issued for development, diversion or storage of water on national forest land will provide for protection of other uses of land or water in accordance with a full evaluation.

3. Initiate water developments or assist in their development by others for on-site use when consistent with State law and when the public will benefit particularly through increased recreation use of national forests.

4. Cooperate with other agencies in the development of water and in the control of water contamination and pollution.

Recreation and Occupancy

1. Recreation priorities will be assigned to develop the highest form of use commensurate with apparent needs.

2. Proposed development and use will be in accordance with prepared plans.

3. Conflicting uses must be subordinated or integrated with recreation use. (See note on exceptions under Management priority)

4. Planned reservoir development will insure adequate provision for the need for recreation facilities. Full development of recreation potential will be planned as needed on all reservoirs irrespective of the constructing agency.

5. Cooperate with other planning and recreation agencies for mountain-type recreation to obtain maximum development from either private, municipal or federal funds.

6. Commercial development will be considered only where suitable private land is not available or where private land owners are unable or unwilling to provide adequate facilities.

7. Summer home tracts will not be located on public land within this z ne. Existing permits will be terminated on a planned basis.

Grazing

1. Grazing will be managed or adjusted as necessary to provide for recreation uses. Need for water for livestock using adjacent range areas will be given consideration.

Wildlife

1. Exercise initiative in programs for wildlife habitat development. Special attention to be directed towards improving existing reservoirs or creating new ones for fish life.

2. Beaver management will be directed towards protection of riparian vegetation.

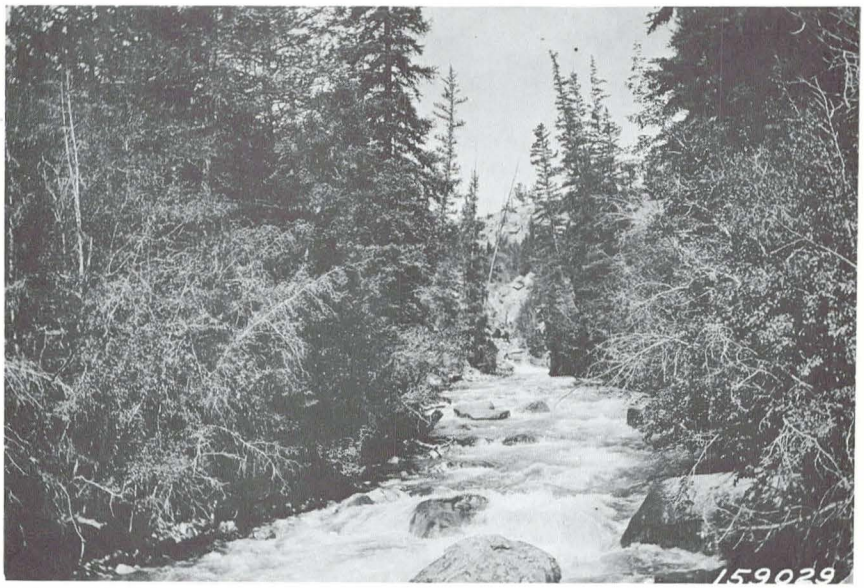
Timber

1. Planning for and cutting timber will be adjusted to meet the needs and objectives of this zone. The chief consideration will be for present and potential recreation needs.

2. Where major roads or highways cross this zone, timber cutting policies will be the same as ("3" below) or the Chief's policy for scenic strips.

3. Throughout cutting areas, special attention will be given to skidding, slash and cull logs disposal and yarding so that surface damage will be minimized, fire hazard reduced and the attractiveness of the forest retained. (Ref. Chief's policy on timber cutting in recreation areas.)

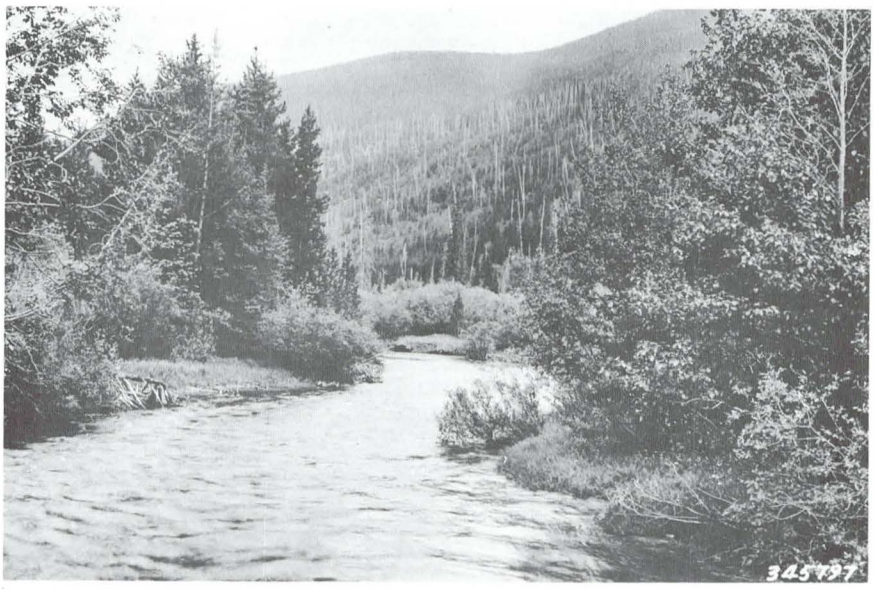
Notes On Revisions and Corrections



Representative Illustrations

of

Streamside Zone



STREAMSIDE ZONE

The Streamside Zone is established on those parts of the drainage network where highest use is primarily related to use of the stream for fishing or enjoyment of the water resource in the undeveloped state.

This zone is relatively narrow. It includes the stream channel and the fringe of riparian vegetation and tree growth extensive enough in width to assure full protection of the recreation values of the stream.

MANAGEMENT PRIORITY

Wildlife with special emphasis on fishing -- primary
Water and Recreation -- secondary

MANAGEMENT OBJECTIVE

To maintain and improve conditions for wildlife with special emphasis on fishlife and to maintain or improve the beauty of the streams for the general enjoyment of the recreationist and protection of stream channel.

MANAGEMENT DIRECTION

Soil

1. Management practices least damaging to soil will be given preference.

2. Uses that accelerate erosion will be avoided, except where adequate preventive or corrective measures can be specified and will be applied.

3. Accelerated erosion will be controlled where unacceptable damage is occurring.

4. Close working relationships will be maintained with agencies, organizations, and individuals concerned with the classification, mapping, management and protection of soil.

5. Soil investigations will be obtained in advance of project planning where there is uncertainty as to suitability.

Water

1. Management practices that will increase and protect usable water will be given preference to the extent compatible with other uses (recognizing priority rank).

2. Any agreements negotiated or permits issued for development, diversion or storage of water on national forest land will provide for protection of other uses of land or water in accordance with a full evaluation.

3. Initiate water developments or assist in their development by others for on-site use when consistent with State law and when the public will benefit particularly through increased recreation use of national forests.

4. Cooperate with other agencies in the development of water and in the control of water contamination and pollution.

Recreation and Occupancy

1. Limit recreation improvements to trails and simple sanitation facilities.

2. Aesthetic values will be given prime consideration in the management of all resources and uses.

3. Permanent occupancy will not be permitted within this zone.

Notes On Revisions and Corrections

SPECIAL ZONE

The Special Zone is an exception in management zones because its boundaries are determined by particular considerations of public significance which are not necessarily duplicated from one instance to the next. Classified areas make up the bulk of the zone. Because of the variety of circumstances which may determine the need for classification, a general description of the zone is not attempted. Instead, the kinds of areas most commonly encountered are listed:

Wild Areas
Natural Areas
Geological Areas
Scenic Areas
Buffer Zones (around parks)

Additional kinds of classified areas are listed and defined in the National Forest Manual. These areas share the feature that interest in management ordinarily is national rather than subregional. Management direction for individual areas in this zone will vary, depending upon the reasons for the classifications.

The classified zone may contain other than Classified Areas. An example would be buffer lands adjoining National Parks or Monuments where it may be desirable to deviate from normal management.

MANAGEMENT PRIORITY - To be established individually by areas.

MANAGEMENT OBJECTIVE - To be established individually by areas.

MANAGEMENT DIRECTION

Soils - Water

(Classification determines direction. See general directions under these catagories).

Recreation and Occupancy

1. Wild Areas are recognized as valid uses and such areas will be established or maintained.

2. Desirability of special areas other than wild areas is recognized and such areas will be established or maintained in suitable locations.

3. The Forest Service will work with other land management agencies to plan direction to the end that intermingled or adjoining public lands (Federal, State, County, Municipal) may contribute the maximum in the planned direction.

Timber - Wildlife - Grazing

(Classification determines management direction).

Minerals - Lands - Fire Control

(See general directions under these catagories).

LAND UTILIZATION PROJECTS ZONE

This zone covers the Land Utilization Project lands in the plains area of the Eastern Colorado Subregion. It includes project KA-LU-21 in Morton County, Kansas but excludes the Fountain Project, CO-LU-2, in the Intermediate Zone near and within the Pike National Forest.

The climate of the Land Utilization Project Zone is characterized by low annual precipitation with occasional high intensity summer storms. Strong northwesterly winds blow at all seasons. Blizzards and dust storms plague the area. Loss of life, livestock, and blocked transportation routes result from these severe storms.

Most of the Project lands have been converted from cultivation to range. Grazing use is controlled by a permit system. Some adjacent or intermingled private land is still cultivated. This adds to the problem of stabilizing soils on Project lands.

MANAGEMENT PRIORITY

Soil Stabilization - primary
Grazing - secondary

MANAGEMENT OBJECTIVE

To correct maladjustment in use of submarginal land and to restore it to the highest beneficial use.

MANAGEMENT DIRECTION

Soil

1. Restore and maintain a permanent vegetative cover adequate to prevent soil movement.

Grazing

1. Forage produced beyond the need for soil stabilization can be utilized by grazing livestock. Range analysis will be completed through the Action and Management Plan stage for every allotment by 1960.

Wildlife

1. Cooperate with Wildlife managing agencies to provide optimum habitat for game birds and animals, and in regulating rodent and predatory populations.

Land

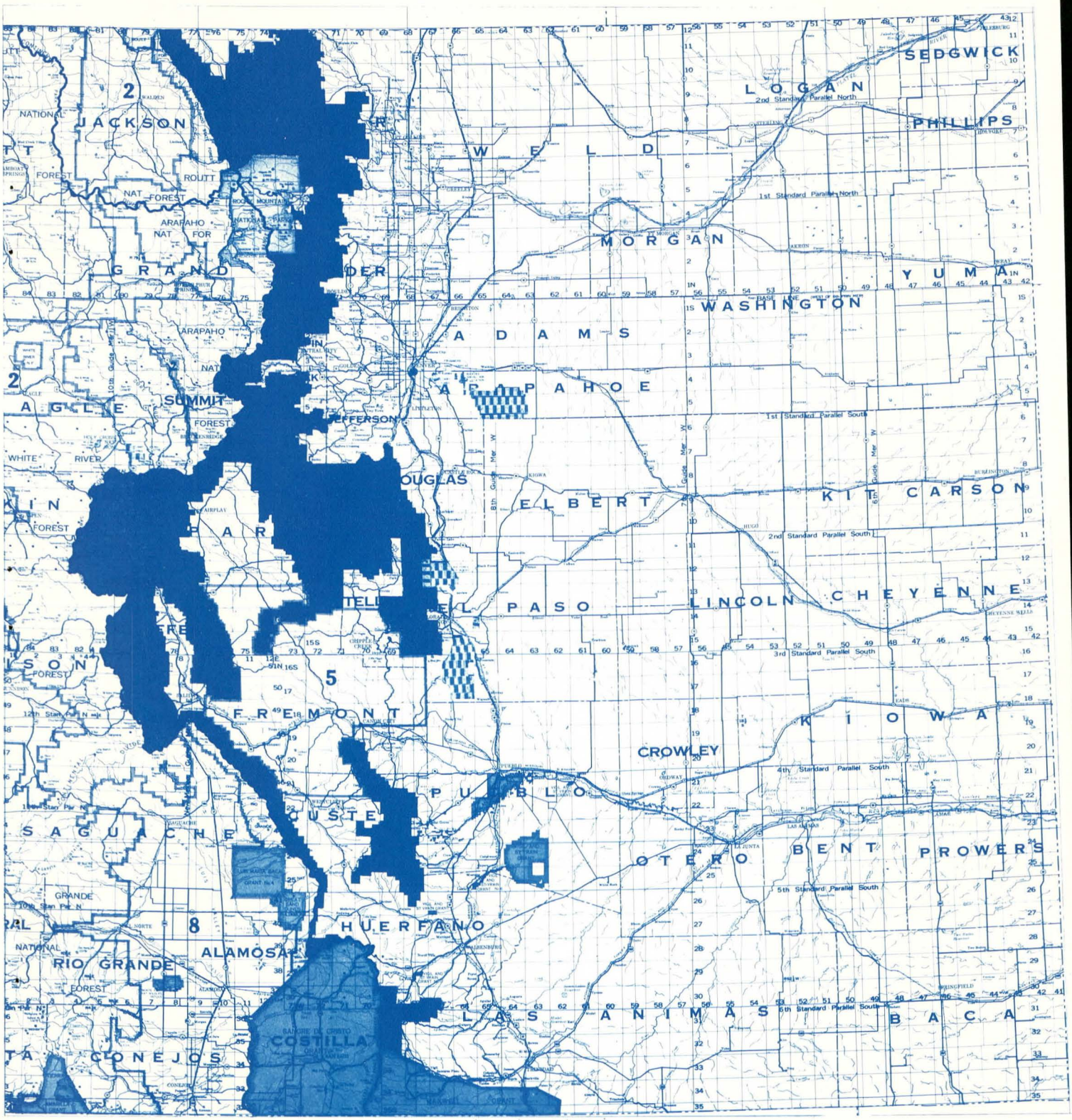
1. Land-for-Land exchanges will be given high priority on L.U. Projects to block up public ownership of Project areas. This will reduce soil deposition damage to Project lands that now occurs from interspersed cultivated lands in private ownership. It will also build towards more manageable units.

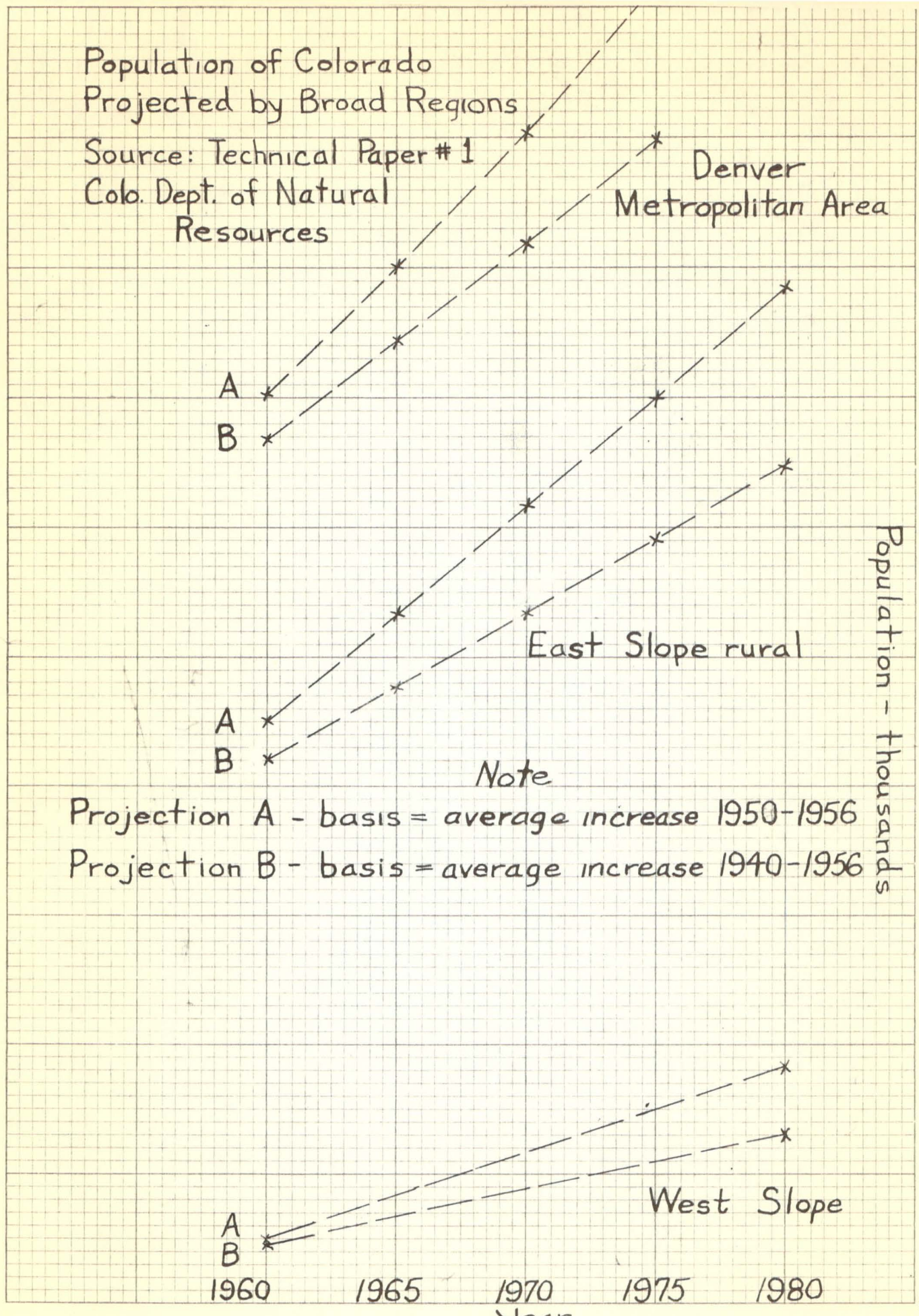
Recreation

1. Wherever opportunity exists prime consideration will be given to the development of public recreation. Tree planting, fishing ponds, waterfowl, resting areas, etc., are possibilities.

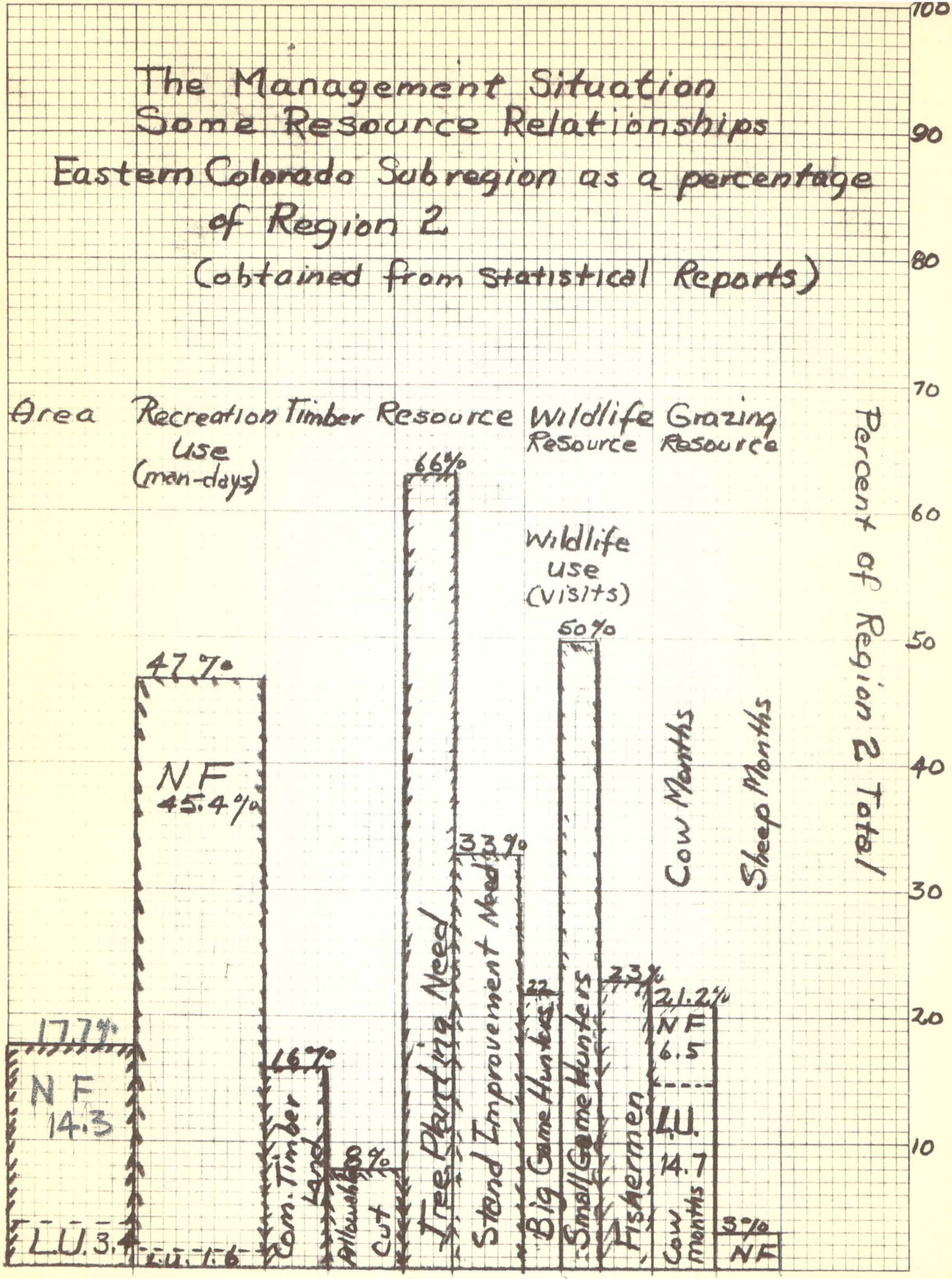
APPENDIX

MAP OF EASTERN COLO. SUBREGION




Population of Colorado
Projected by Broad Regions
Source: Technical Paper # 1
Colo. Dept. of Natural Resources
Denver Metropolitan Area
A
B
East Slope rural
A
B
Note
Projection A - basis = average increase 1950-1956
Projection B - basis = average increase 1940-1956
West Slope
A
B
1100
1000
900
800
700
600
500
400
300
200
Population - thousands
1960
1965
1970
1975
1980
Year

The Management Situation
Some Resource Relationships
Eastern Colorado Subregion as a percentage of Region 2
(obtained from statistical Reports)



JAR 3/17/58

Water Yield by Forests Within the Subregion

Forest	Surface Acres	Water Yield Acre - feet	Acre feet Per Surface Acre
Arapaho (Clear Creek)	194,400	168,300	0.87
Pike	1,084,814	300,000	0.28
Roosevelt	784,621	800,000	1.01
San Isabel	1,153,410	720,650	0.62
TOTALS	3,217,245	1,988,950	--

The dependable surface water supply on the Eastern slope of Colorado has long been over appropriated.

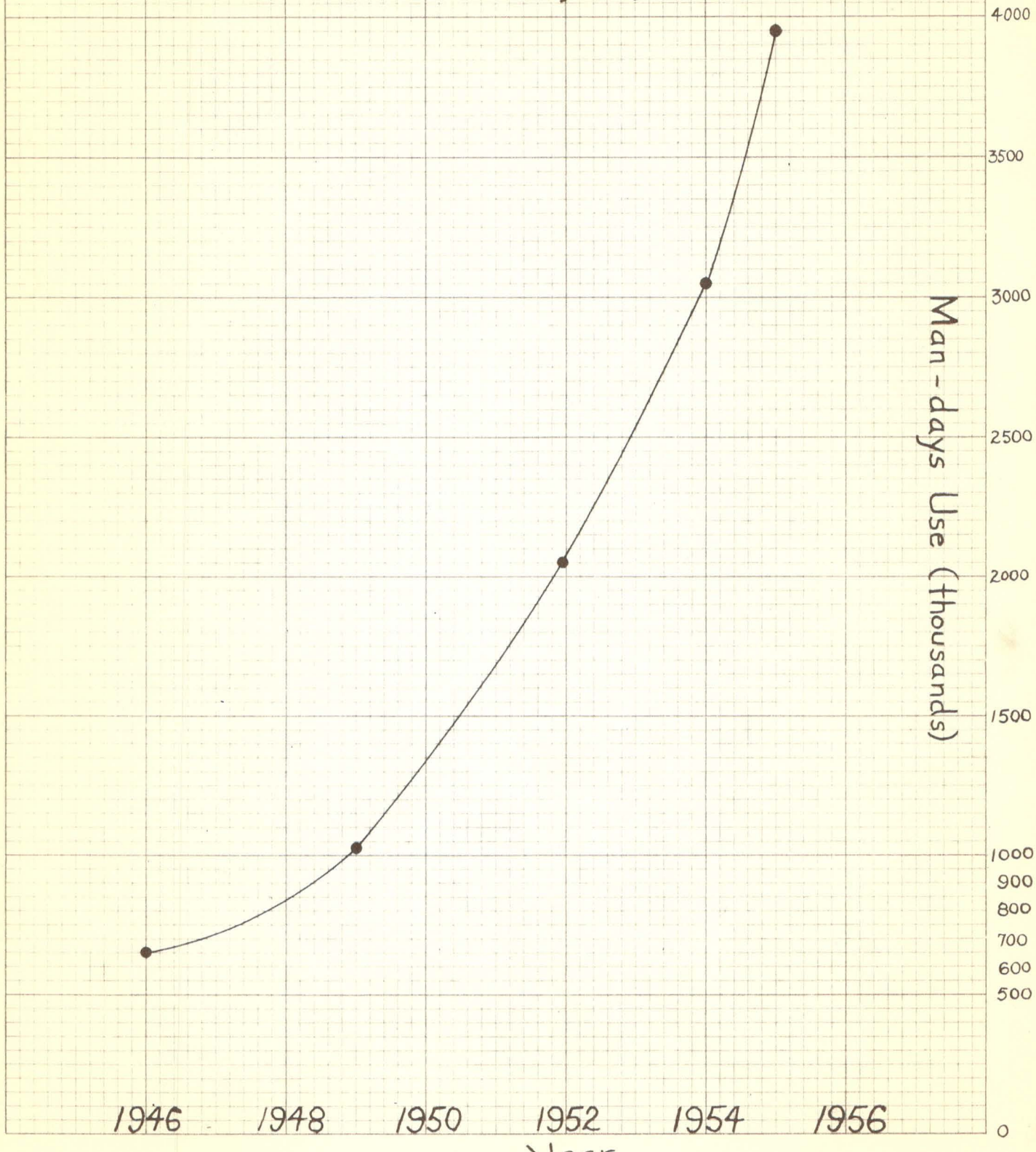
Indications are that half of Colorado's population may be concentrated in cities and towns within a relatively small area on the Eastern slope.

21 existing transmountain diversions (from the Western slope) imported 353,560 acre feet of water to the Eastern slope.[1951] The City of Denver alone is engaged in a $100 million water transmountain diversion program.

Recreation Use Trend - Man-days

Eastern Colorado Subregion - National Forest Lands

Source: Form 446; Highway Use excluded

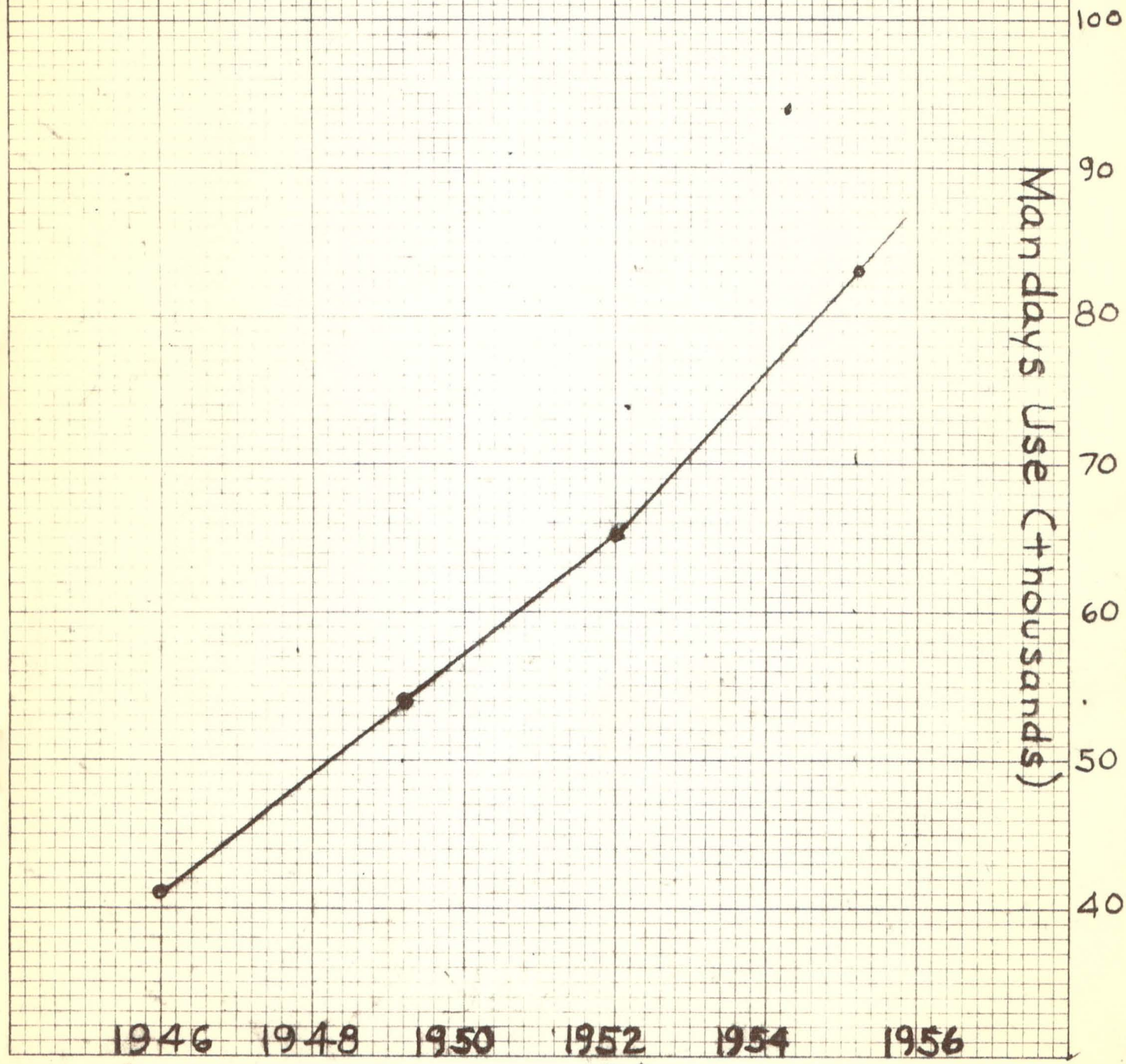


JAR

Recreation Use Trend - Winter Sports
Eastern Colorado Subregion - National Forests
Source: Form 446 - item 3

Winter Sports Use (primarily skiing) doubled in a decade. It lagged behind in the general upsurge of recreation use.
In 1946 it was 6% of total recreation use.
In 1949 it was 5% of total recreation use.
In 1955 it was 2.1% of total recreation use.

One forest in the subregion had no winter sports areas thrucout the decade.



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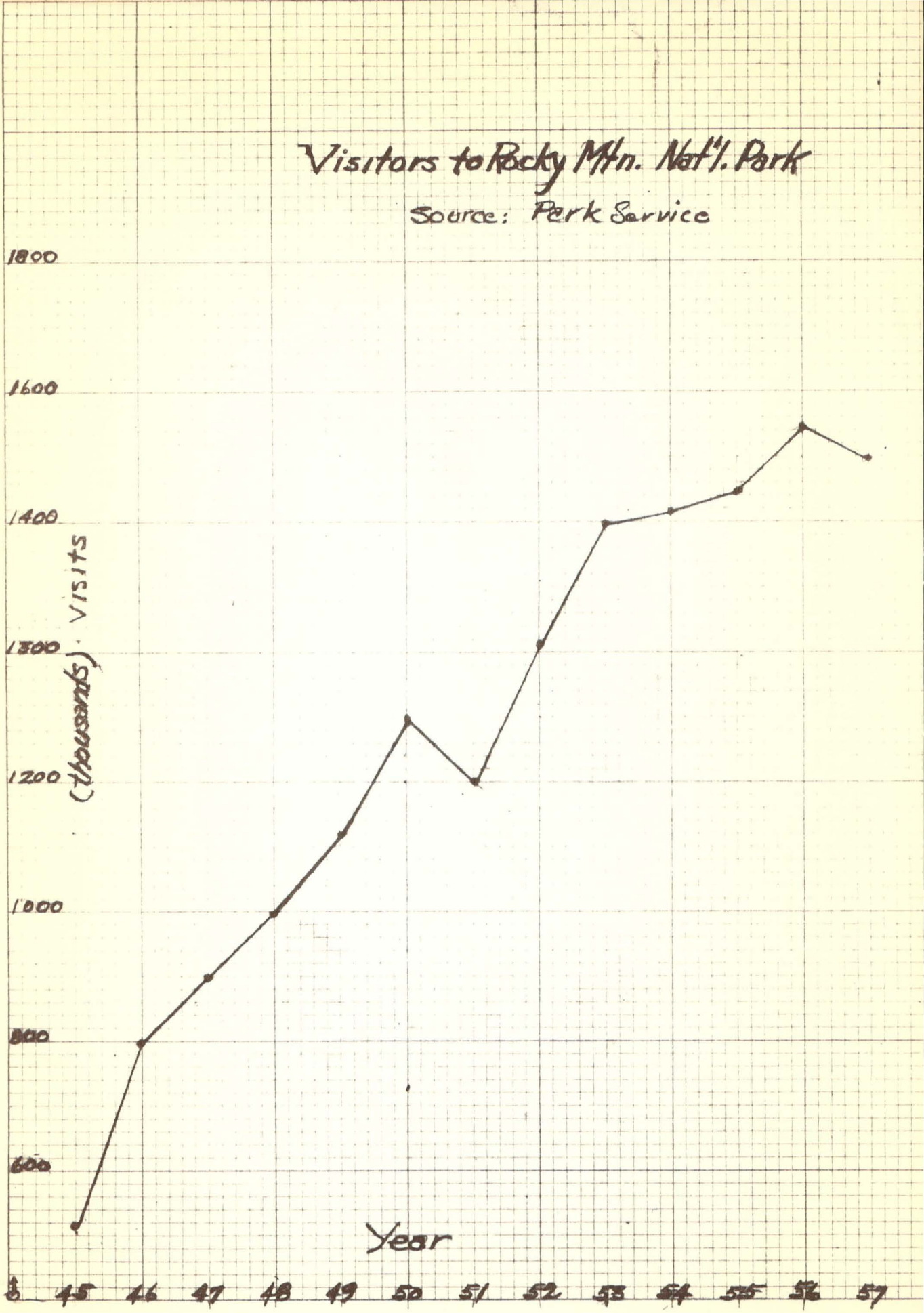

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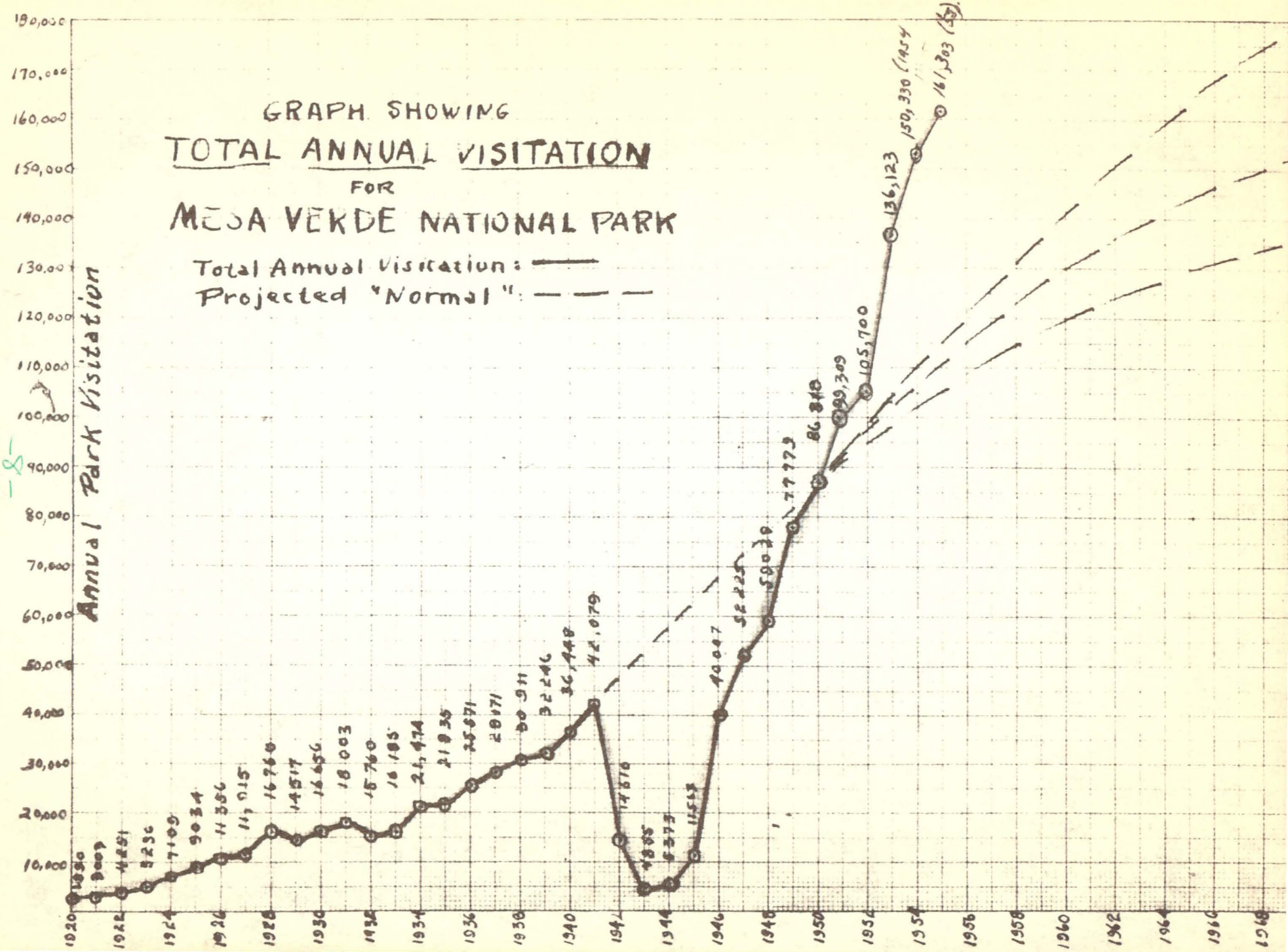
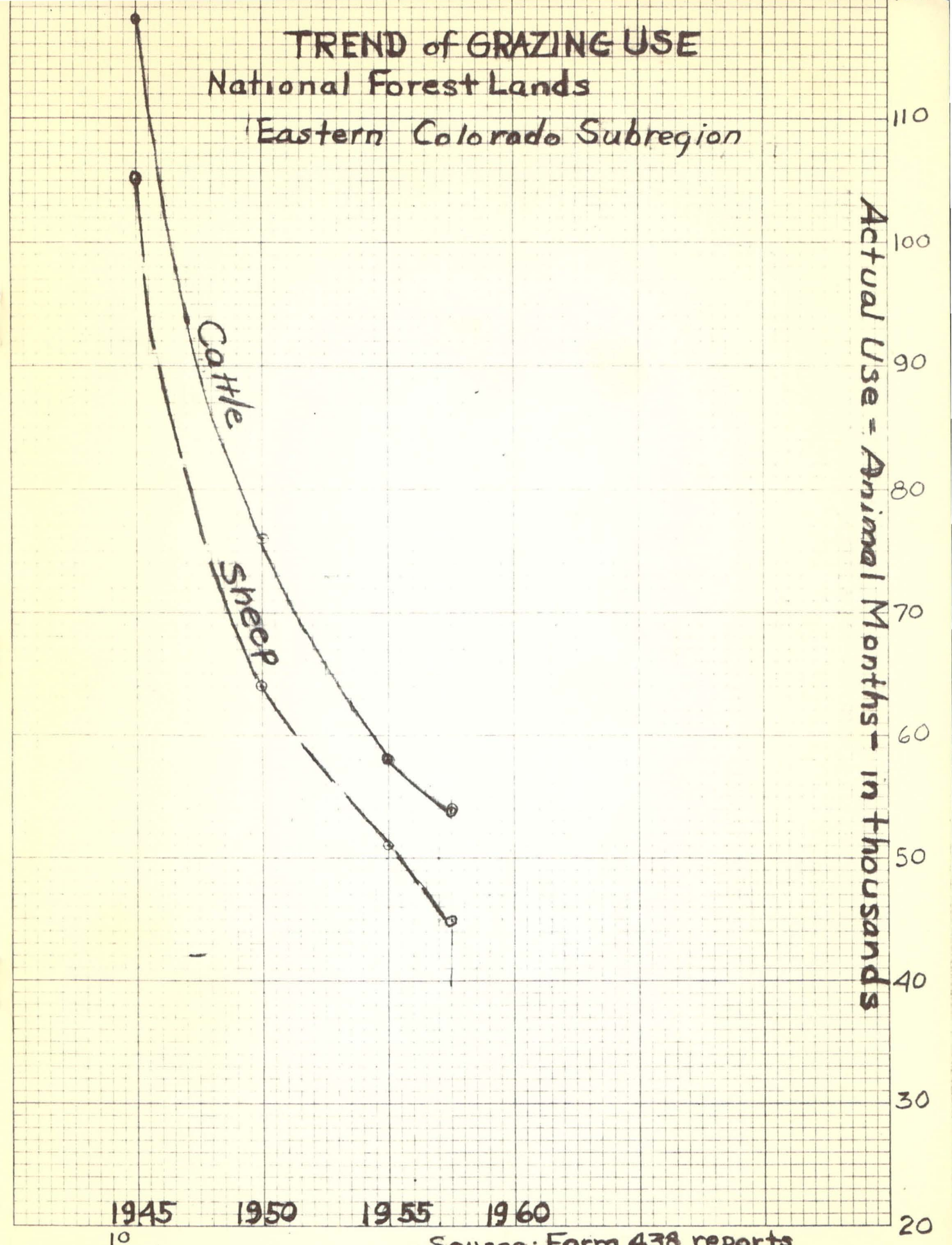
KEUFFEL & ESSER CO.


GRAPH SHOWING
TOTAL ANNUAL VISITATION
FOR
MESA VERDE NATIONAL PARK
Total Annual Visitation: ——
Projected "Normal": — — —
Annual Park Visitation
180,000
170,000
160,000
150,000
140,000
130,000
120,000
110,000
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
1920
1922
1924
1926
1928
1930
1932
1934
1936
1938
1940
1942
1944
1946
1948
1950
1952
1954
1956
1958
1960
1962
1964
1966
1968
1030
3009
4491
8236
7109
9034
11356
11,015
16760
14517
16656
18003
15760
18195
24,474
21935
25671
28071
30911
32246
36,448
42,079
14876
4865
6373
11543
40047
52225
60039
77773
86,318
99,309
105,700
136,123
150,330 (1954)
161,303 (1955)



Source: Form 438 reports

JAR 3/20/58